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Overview of the 2018 Farm Bill Energy Title Programs

Congress has long encouraged the production of renewable energy and products derived from agriculture-based feeds took in pursuit of various policy goals. These goals include U.S. energy security, greenhouse gas emission reduction, and increased demand for U.S. farm products. Since the late 1970s, Congress has employed a wide range of policy mechanisms and incentives—including the farm bill—to expand the production and use of agriculture-based renewable energy (e.g., taxincentives to blend biofuels with gas oline, loan guarantees to construct production facilities, and a consumption mandate for biofuels).

The bioenergy programs authorized and funded under the energy title of the 2018 farm bill (P.L. 115-334, Title IX) build upon programs established in the 2002 farm bill (P.L. 107-171)—the first farm bill with an energy title authorizing several agriculture-based programs (7 U.S.C. §8101 et seq.). Since 2002, the energy title in succeeding farm bills mostly has reauthorized—and in some cases modified—the programs. With a few exceptions, Title IX of the 2018 farm bill reauthorized the major bioenergy programs from the 2014 farm bill (P.L. 113-79), while providing several of them with mandatory funding (i.e., not dependent on discretionary appropriations) for the five-year period from FY2019 to FY2023. Mandatory funding for the energy title programs in the 2018 farm bill is less than what was provided in the 2014 farm bill. Because the farmbill provided mandatory funding and authorized discretionary funding for many of the energy title programs, there is typically an annual discussion about how much discretionary funding should be appropriated. The 2018 farm bill also established a new program for carbon utilization and biogas education, and repealed two authorities—the Repowering Assistance Program and the Rural Energy Self-Sufficiency Initiative.

A description of the farmbill energy title programs follows. **Table 1** identifies the implementing agency by program and FY2021 authorized and appropriated funding levels.

Biobased Markets Program. Referred to as the BioPreferred Program. Promotes biobased products through two initiatives: (1) mandatory purchasing by federal agencies and their contractors and (2) a voluntary labeling initiative for biobased products. Products that meet the minimum biobased content criteria may display the U.S. Department of Agriculture (USDA) Certified Biobased Product label.

Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program. Seeks to facilitate the development of new and emerging technologies for advanced biofuels; renewable chemicals; and biobased product manufacturing by providing loan guarantees for the development, construction, or retrofitting of commercial-scale biorefineries.

Bioenergy Program for Advanced Biofuels. Referred to as the Advanced Biofuel Payment Program. Provides

payments to fuel producers to support and expand production of advanced biofuels (i.e., not derived from com starch). One payment type is for the actual quantity produced, and a second is for production increases. No more than 5% of available funds provided each year may be used for facilities that exceed an annual refining capacity of 150 million gallons.

Biodiesel Fuel Education Program. Provides grants to nonprofit organizations and institutions of higher education that educate government and private vehicle fleet operators, the public, and others about the benefits of biodiesel.

Rural Energy for America Program (REAP). Provides eligible entities (e.g., state, tribal, or local governments; land-grant colleges and universities; rural electric cooperatives; and public power entities) with grants for energy audits and renewable energy development assistance. REAP also provides loan guarantees and grants for energy efficiency improvements and renewable energy systems (RESs). RESs include biofuels, and power generation from wind, solar, biomass, geothermal, ocean, and some hydropower sources. RESs exclude retail energy dispensers (e.g., blender pumps).

Rural Energy Savings Program (RESP). Provides loans to rural families and small businesses to achieve cost savings to implement durable cost-effective energy efficiency measures to include on- or off-grid renewable energy or energy storage systems.

Biomass Research and Development (BR&D). Supports cooperation and coordination between the USDA and the U.S. Department of Energy (DOE) for biomass research and development. The BR&D Initiative offers competitive funding through grants, contracts, and financial assistance for research, development, and demonstration for biofuels and biobased products. Eligibility is limited to institutions of higher learning, national laboratories, federal or state research agencies, and private and nonprofit entities.

Feeds tock Flexibility Program (FFP). Designed to help stabilize sugar prices so as to avoid forfeitures under the sugar loan program. Under FFP, USDA's Commodity Credit Corporation may purchase sugar from processors for resale to fuel ethanol producers.

Biomass Crop Assistance Program (BCAP). Provides financial as sistance to owners and operators of agricultural land and nonindustrial private forest land to establish, produce, and deliver biomass feedstock to eligible processing plants via matching payments; and establishment and annual payments.

Community Wood Energy and Wood Innovation Program. Provides matching grants for the installation of community wood energy systems or building an innovative wood product facility. Grants generally are capped at 35% of the capital cost, or up to 50% for special circumstances.

Sun Grant Program. Provides grants to regional centers for multi-institutional and integrated, multistate research, extension, and education programs on technology development and technology implementation that address bioenergy, biomass, or bioproducts research priorities.

Carbon Utilization and Biogas Education Program. Provides competitive grants to eligible entities to educate the public about the economic and emissions benefits of permanent carbon sequestration or utilization, and to educate agricultural producers and other stakeholders about the collection of organic waste from multiple sources to be used in a single biogas system.

Table 1. 2018 Farm Bill Energy Title Programs (P.L. 115-334, Title IX): FY2021 Funding

Title IX Energy Program Name	Implementing Agency	U.S. Code Citation	FY2021 Mandatory Funding (M) and Authorization of Discretionary Appropriations (D) (millions of dollars)	FY2021 Appropriations (millions of dollars)
Biobased Markets Program (i.e., BioPreferred Program)	USDA RD	7 U.S.C. §8102	M – 3 D – 3	M – 3 D – 0
Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program	USDA RD	7 U.S.C. §8103	M – 0 D – 75	M – 0 D – 0
Bioenergy Program for Advanced Biofuels (i.e., Advanced Biofuel Payment Program)	USDA RD	7 U.S.C. §8105	M – 7 D – 20	M – 7 D – 0
Biodiesel Fuel Education Program	USDA NIFA and USDA OEPNU	7 U.S.C. §8106	M – 0 D – 2	M – 0 D – 0
Rural Energy for America Program	USDA RD	7 U.S.C. §8107	M – 50 D – 20	M - 50 D $- 0.392^a$
Rural Energy Savings Program	USDA RD	7 U.S.C. §8107a	M – 0 D – 75	M – 0 D – I I
Biomass Research and Development	USDA NIFA and DOE	7 U.S.C. §8108	M – 0 D – 20	M – 0 D – 0
Feedstock Flexibility Program	USDA FSA	7 U.S.C. §8110	M – SSAN D – 0	M – SSAN D – 0
Biomass Crop Assistance Program	USDA FSA	7 U.S.C. §8111	M – 0 D – 25	M – 0 D – 0
Community Wood Energy and Wood Innovation Program	USDA FS	7 U.S.C. §8113	M – 0 D – 25	M – 0 D – 5 ^b
Sun Grant Program	usda nifa	7 U.S.C. §8114	M – 0 D – 75	M – 0 D – 3
Carbon Utilization and Biogas Education Program	USDA and DOE	7 U.S.C. §8115	M – 0 D – 2	M – 0 D – 0

Sources: P.L. I 15-334, P.L. I 16-260, Joint explanatory statement for House Rules Committee Print I 16-68, Appropriation Committee reports, and CRS publications.

Notes: D = discretionary funding; FS = Forest Service; FSA = Farm Service Agency; M = mandatory funding; NIFA = National Institute of Food and Agriculture; OEPNU = Office of Energy Policy and New Uses; RD = Rural Development; SSAN = such sums as necessary. The mandatory funding is subject to sequestration, which is unspecified in the table.

- a. In addition to the discretionary appropriations provided for the energy title programs, the 116th Congress provided USDA with \$10 million for "a pilot program to provide financial assistance for rural communities to further develop renewable energy" (Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2021, P.L. 116-260, Div. A, §781). USDA reports this \$10 million under discretionary appropriations for REAP. (See 2022 USDA Explanatory Notes for the Rural Business Cooperative Service, "Table RBCS-61. Rural Energy for America Program Account. Appropriations Project Statement," p. 52.)
- b. The 116th Congress appropriated up to \$5 million for the implementation of §8644 of P.L. 115-334, the Agriculture Improvement Act of 2018. (See the explanatory statement for P.L. 116-260 in the Dec 21, 2020, Congressional Record, Book IV, p. 8544.) The U.S. Forest Service reports the program was funded at \$2 million for FY2021. (See U.S. Forest Service FY2022 Budget Justification, pp. 144-145.)

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